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April 8, 1992

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BY HAND DELIVERY

Ms. Donna Searcy
Secretary
Federal Communications Commission
Room 222
1919 M Street, N.W.
Washington, D.C. 20554

Federal Communications Commission
Office of the Secretary

RE: RM-7927
Celsat Petition for Rulemaking

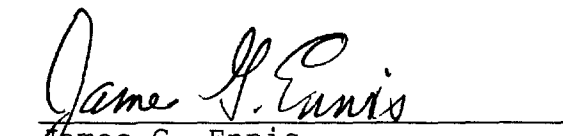
Dear Ms. Searcy:

Transmitted herewith, on behalf of Motorola Satellite Communications, Inc., is an original and nine copies of its opposition to Celsat's petition for rulemaking in RM-7927.

If additional information is required concerning this matter, please communicate with this office.

Very truly yours,

FLETCHER, HEALD & HILDRETH


James G. Ennis
Counsel for Motorola Satellite
Communications, Inc.

JGE/cm

cc: Thomas T. Stanley (w/enc.)
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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

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Federal Communications Commission
Office of the Secretary

In the Matter of)

AMENDMENT OF PARTS 2, 22 & 25)
OF THE COMMISSION'S RULES)

for an Allocation of Frequencies and)
Other Rules for a New Nationwide Hybrid)
Space/Ground Cellular Network for)
Personal/Mobile Communications Services)

RM NO. 7927

OPPOSITION TO
PETITION FOR RULEMAKING

Motorola Satellite Communications, Inc. ("Motorola") hereby submits its opposition to the petition for rulemaking submitted by CELSAT, INC. (hereafter "Celsat") on February 6, 1992, in the above captioned proceeding.

Introduction and Summary

Celsat proposes that 32-37 MHz of spectrum be allocated on an exclusive, primary basis for an integrated cellular/mobile satellite service. Celsat claims that this service, which it calls a hybrid personal communications network ("HPCN") is in the public interest because of its extraordinary spectrum efficiency and its ability to provide "one number" voice, data, and position determination service to personal mobile units as well as compressed video services, and for other reasons.

Celsat proposes that the satellite portion of this service be provided by geosynchronous satellite(s) utilizing large high gain

antennas and FDMA/CDMA modulation.

Celsat proposes that the spectrum for this service may be obtained by using 37 MHz of the 80 MHz of spectrum the U.S. proposed be allocated for MSS at WARC-92. Alternatively, Celsat requests that 32 MHz of spectrum allocated to RDSS (i.e., 1610-1626.5 MHz/2483.5-2500 MHz) be allocated for the new service. Finally, Celsat suggests that part of the 220 MHz that the Commission has proposed for emerging technologies between 1.85 GHz and 2.2 GHz could be allocated for HPCN.¹

Celsat's petition for rulemaking should be denied. If Celsat wishes to do so, it may submit its petition as its comments in one of the several rulemaking proceedings which the Commission has begun or will soon begin that affect MSS. Celsat has not shown that its proposal is so novel or so different as to justify a new rulemaking. In particular, it has not justified its proposal that the RDSS bands should be reserved for its HPCN system on an exclusive basis.

I. Celsat's Petition Should Be
Denied Without Prejudice to It
Resubmitting Its Filing as Its Comments
In Other FCC Rulemaking Proceedings.

Celsat's proposed system is only a variation on the GEO/MSS system that AMSC intends to construct. Essentially, what Celsat is proposing in its petition is that the Commission allocate more spectrum for GEO/MSS systems. As such, its petition is both

¹ Celsat Petition for Rulemaking at 4.

unnecessary and premature. As a result of WARC-92, several bands, including the RDSS bands, have been allocated internationally to MSS. In due course, the Commission will institute a domestic rulemaking proceeding to implement the results of WARC-92. At that time, the question of whether these new MSS bands should be assigned for GEO/MSS or LEO/MSS in the U.S. will no doubt be debated. The appropriate treatment of Celsat's petition, therefore, is to dismiss it. Celsat may, if it wishes to do so, refile the petition as Celsat's comments in the WARC-92 proceeding to follow.

Moreover, to the extent Celsat is proposing a "hybrid" cellular/satellite mobile system, Celsat also has an opportunity to file in the Commission's rulemaking proceeding proposing to allocate spectrum for emerging technologies (ET Docket 92-9). In short, there are a number of proceedings where Celsat can present its ideas without the Commission having to institute a new rulemaking proceeding in order to have Celsat's proposal receive full consideration.²

II. Celsat Has Not Disclosed
Sufficient Reasons to Justify
The Rulemaking Proceeding it Proposes.

Considered on its merits, Celsat's petition for a separate

² It should be noted that Motorola disagrees with Celsat's basic premise that additional bands should be allocated for GEO/MSS. In Motorola's view, LEO technology is superior to GEO technology if the purpose is to provide two-way voice service to hand-held, portable subscriber units.

rulemaking proceeding to create a "HPCN" service must fail.

Section 1.407 of the Commission's rules states that the Commission will not issue a notice of proposed rulemaking ("NPRM") in response to a petition for rulemaking unless the Commission determines that the petition "discloses sufficient reasons in support of the action requested to justify the institution of a rulemaking proceeding." In this case, Celsat's petition does not "disclose sufficient reasons" to justify the issuance of an NPRM.

A. There is Nothing Novel About Celsat's Proposal.

In the first place, there is nothing novel about Celsat's proposed service. Cellular radio service is well established in the U.S. Mobile satellite service delivered by geostationary satellite is something American Mobile Satellite Corporation (AMSC) received a construction permit to provide in the upper L-band some years ago. Nor is the "hybrid" concept novel. Motorola, for one, proposes that the hand units used with its Iridium system will be "dual-mode," i.e., capable of operating on both cellular or mobile satellite frequencies. The units will switch automatically from cellular to satellite if cellular is not available.

B. Celsat Has Not Demonstrated The Feasibility of Its Proposed Satellite System.

Celsat does not demonstrate in its petition that the characteristics which distinguish its system from AMSC's

geostationary MSS system are feasible. The Celsat geostationary satellite system relies on much larger antennas than AMSC proposes in order to achieve smaller cells on earth and the increased spectrum efficiency which Celsat proclaims for its system.

However, such antennas must conform to a more ideal shape in space than is customary today to achieve the required pointing accuracy and beam shape. Celsat has not demonstrated in its petition that such perfection can be achieved.³

Another purported innovation claimed by Celsat is the "hybrid" nature of its cellular/satellite system in which both the cellular and satellite elements operate simultaneously using the same band.⁴ However, elsewhere in its petition, Celsat itself demonstrates that such a concept is unworkable.⁵ Celsat itself thus establishes the infeasibility of one of the major benefits it claims from its proposed service.

³ Celsat refers the reader of its petition to Celsat's "contemporaneously filed" satellite application. However, so far as Motorola is aware, no such application has been filed. Consequently, technical details of Celsat's system that would be contained in its application, which are necessary to validate its concept, have not been disclosed.

⁴ See Celsat Petition at p. 10, n. 11.

⁵ See Celsat Petition at pp. 42-43. Celsat seems to say that the solution is to have one licensee, but it is unclear how this would solve the problem, since the problem is not a matter that can be solved by coordination.

C. Celsat Has Failed to Show That Its
Proposed System Should Be Considered
In the RDSS Bands.

There are a number of reasons why Celsat's proposal is particularly inappropriate for implementation in the RDSS band. The U.S. position at WARC-92 was to have spectrum in this band allocated in a way that would make it suitable for LEO satellite systems to use. In fact, the MSS allocation that was adopted at WARC-92 for the RDSS band is tailored to the requirements that the U.S. LEO applicants have stated they need. It would be highly inappropriate at this stage to conclude that the effort expended by the U.S. at WARC-92 should be abandoned and this band should now be allocated to GEO/MSS systems.

Moreover, assuming that a Celsat-type system could meet the technical constraints imposed on MSS systems operating in the RDSS band -- which Celsat has clearly not demonstrated -- the fact is that Celsat's system application, if and when it is filed, cannot be considered with the RDSS applications that are in the current processing group. The cut-off date for filing an application to be considered with this group of applications was June 3, 1991. If Celsat's application was filed today, it would be ten months late.⁶

Nor would it be in the public interest to re-open this proceeding to accept Celsat's as-yet-unfiled application. Not

⁶ FCC Public Notice, Report No. DS-1068, DA 91-407 (April 1, 1991).

only would such an action make a mockery of the Commission's established processes and deny the current applicants due process, it would exacerbate an already difficult problem for the Commission. Motorola has previously demonstrated in its pleadings in this proceeding that the current applicants for the band could not all operate in the band using spread spectrum and have viable systems. There simply is not enough spectrum in the RDSS bands for them all to operate. Celsat agrees.⁷ However, the solution that Celsat proposes -- that it be the exclusive space segment licensee in whatever band is allocated for HPCN, including the RDSS bands -- is not worthy of further consideration by the Commission. Finally, re-opening the current processing group to new applications would further delay the time when the public begins to enjoy the benefits of RDSS/MSS service to small, hand-held units. For all these reasons, the Commission should not consider re-opening the current proceeding to consider new applications for satellite service in the RDSS bands.

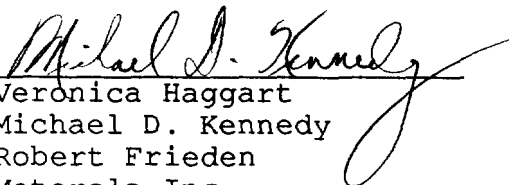
⁷ Celsat Petition at 46.


Conclusion

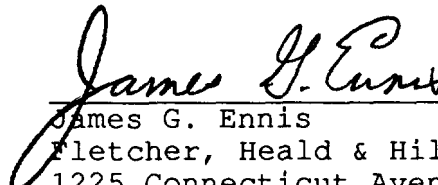
For the foregoing reasons, Celsat, Inc.'s petition for rulemaking should be denied.

Respectfully submitted,

MOTOROLA SATELLITE
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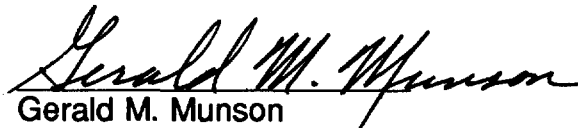

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Its Attorneys

April 8, 1992

Declaration

I hereby declare under penalty of perjury that I have prepared or reviewed the engineering and technical information contained in this opposition to PETITION FOR RULEMAKING and it is true and correct to the best of my knowledge, information and belief.


Gerald M. Munson
Spectrum Utilization Manager

Date: April 7, 1992

CERTIFICATE OF SERVICE

I, Catherine Mills, a secretary in the law firm of Fletcher, Heald & Hildreth, do hereby certify that a true copy of the foregoing "OPPOSITION TO PETITION FOR RULEMAKING" of Motorola Inc. was sent this 8th day of April, 1992, by first class United States Mail, postage prepaid, to the following:

Victor J. Toth
The Law Offices of Victor J. Toth
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Reston, Virginia 22091
Counsel for Celsat, Inc.



Catherine Mills